REMARKS

Claims 1-11 and 21-32 are pending in the application. Claims 1, 3, 5, 7, 10, and 21-23 have been amended for consistency and to better describe certain aspects of the invention. Claims 24-32 have been added to further describe the invention. Claims 12-20 have been cancelled in view of the previously imposed Restriction Requirement. Favorable reconsideration in light of the amendments, the new claims, and the remarks which follow is respectfully requested.

Claim Objections

Claims 7, 21, and 22 have been objected to for a typographical error and for the presence of an acronym. The claims have been amended as suggested by the Examiner, without narrowing the scope thereof.

The Indefiniteness Rejections

Claims 7, 10, and 23 have been rejected under 35 U.S.C. § 112, second paragraph, with regard to the formulae language and the range language. Claims 7, 10, and 23 have been amended to clarify the meaning of the noted language, without narrowing the scope thereof. It is noted that each of the various alkyl based groups may contain from about 1 to about 30 carbon atoms. Claim 7 has been amended to clarify this. It is further noted that two additional choices for the R group are substituted silanes and siloxanes. The silanes are substituted while the siloxanes are not explicitly substituted. This is reflected in the plain meaning of the claims. One skilled in the art would readily understand the meaning and scope of the claims.

The Amendments

Various claims have been amended to modify the language thereof consistent with the Examiner's suggestions. The independent claims have been amended to disclaim porous inorganic oxide matrixes (such as those described in Dombrowski)

used to form coatings on substrates. Support for the amendments describing the porous carrier exist in the specification, for example, on page 13.

The Anticipation Rejection

Claims 1, 2, and 5-11 have been rejected under 35 U.S.C. § 102(b) over Dombrowski (U.S. Patent 5,853,800). Dombrowski relates to thermal vapor coating with organosilane compounds on optical substrates in high vacuum. A porous inorganic oxide matrix is used to perform the coating. The inorganic oxide materials include silica, titania, zirconia, magnesia, and alumina.

To establish anticipation, each and every claim feature must be disclosed in a single cited art document. Claim 1 requires using a porous carrier that is made of metal and contains pores having an average pore size from about 1 micron to about 1,000 microns. Dombrowski fails to disclose a porous carrier that is made of metal and contains pores having an average pore size from about 1 micron to about 1,000 microns. This is because, in part, the matrix of Dombrowski is made of an inorganic oxide material, such as silica, titania, zirconia, magnesia, or alumina. Inorganic oxides are different from metals for a number of reasons, including their general ability to conduct heat. This is also because, in part, Dombrowski fails to disclose, teach, or suggest a matrix with the pore sizes required by claim 1.

Since Dombrowski does not disclose each and every feature of claim 1, and in particular the specific porous carrier required, Dombrowski cannot anticipate claims 1, 2, and 5-11. And in view of the characteristic differences between metal materials and inorganic materials, Dombrowski fails to teach or suggest all of the features of claims 1, 2, and 5-11. Withdrawal of the rejction is respectfully requested.

The Obviousness Rejection over Arora

Claims 21-23 have been rejected under 35 U.S.C. § 103(a) over Arora et al (U.S. Patent Publication 2002/0082329) in view of Dombrowski. Arora et al relates to using a mixture of a solid polymer material and a metal oxide powder (such as P25 titania from

Degussa) to form a coating over a substrate. A product information sheet describing the P25 Degussa product is enclosed herewith.

The Examiner essentially contends that the titania (titanium dioxide) of Arora et al is the same as the porous carrier of the subject invention. Applicant respectfully disagrees.

There are several differences between the porous carrier of the claims and the metal oxide powder used by Arora et al that indicate that one skilled in the art would not have been motivated by Arora et al to practice the methods of the subject invention. First, the respective materials conduct heat differently (the porous carrier of the claims readily conducts heat while the metal oxide powder used by Arora et al is resistent to heat conduction). Second, the porous carrier of the claims requires pores having a specifically defined pore size. Referring to enclosed Product Information sheet, the P25 titania from Degussa has an average particle size of 21 nm. Thus, the pore size of this "porous material" must be less than 0.021 microns (21 nm). This is about TWO orders of magnitude smaller than the claims explicitly require. Therefore, there is no equivalence whatsoever between the titania powder of Arora et al and the metal porous carriers of the subject invention.

Since there is no equivalence between these materials, one skilled in the art would not have been motivated by Arora et al to employ a metal porous carrier having an average pore size from about 1 micron to about 1,000 microns in the manner required by the claims. Since Dombrowski fails to teach or suggest the claim features not taught or suggested by Arora et al, claims 21-23 are render obvious by the cited art. Withdrawal of the rejection is therefore respectfully requested.

The Obviousness Rejection over Dombrowski

Claim 3 has been rejected under 35 U.S.C. § 103(a) over Dombrowski in view of Kamura (U.S. Patent 6,264,751). Claim 4 has been rejected under 35 U.S.C. § 103(a) over Dombrowski. Kamura relates to forming a water repellant film, and mentions pore sizes. However, even if the pore sizes of Kamura are employed, due the deficiencies of

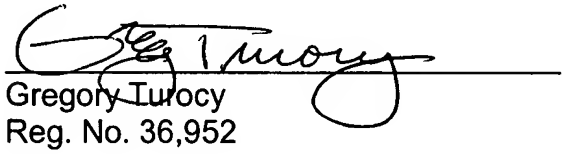
Dombrowski (discussed in the sections above), the claims remain nonobvious. Withdrawal of the rejections is therefore respectfully requested.

Should the Examiner believe that a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

In the event any fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 50-1063.

Respectfully submitted,

AMIN & TUROCY, LLP



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